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EXAMINER

NAHAR, QAMRUN

ART UNIT	PAPER NUMBER
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2124

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DATE MAILED: 04/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/604,112

Applicant(s)

SZEWERENKO ET AL.

Examiner

Qamrun Nahar

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 June 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment filed on 1/28/04.
2. Claim 7 has been cancelled.
3. Claims 14-20 have been added.
4. Claims 1-2 and 8 have been amended.
5. Claims 1-6 and 8-20 are pending.
6. The drawings are objected to under 37 CFR 1.83(a).
7. Claim 14 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.
8. Claims 1 and 16-17 stand finally rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.
9. Claims 1 and 16-17 stand finally rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement.
10. Claims 18-20 stand finally rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.
11. Claims 18-20 stand finally rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement.
12. Claims 1 and 16-20 stand finally rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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13. Claims 1-6, 8-9 and 12-20 stand finally rejected under 35 U.S.C. 103(a) as being unpatentable over Lawrence et al. (U.S. Pat. No. 5,519,866) (hereafter Lawrence) in view of McLain, Jr. (U.S. Pat. No. 5,956,513) (hereafter McLain).

14. Claims 10 and 11 stand finally rejected under 35 U.S.C. 103(a) as being unpatentable over Lawrence in view of McLain, as applied to claim 2 above, and further in view of Draves (U.S. Pat. No. 5,950,221).

Response to Amendment

Drawings

15. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “without running a confidence check” and “fast on-chip memory” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

16. Claim 14 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

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Claim 14 recites substantially the same limitation as in claim 2, see lines 12-13 of claim

2.

Claim Rejections - 35 USC § 112

17. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

18. Claims 1 and 16-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1 recites the limitation “without running a confidence check” on lines 3 and 7. The specification does not provide enough support for this limitation. The only statement found regarding this limitation is in the Summary of the Invention, pg. 15, lines 13-16. However, no further details were provided regarding how this invention utilizes and/or incorporates this feature. This limitation is interpreted as “without resolving any unresolved conflicts”.

Claims 16-17 are rejected for dependency upon rejected base claim 1 above.

19. Claims 1 and 16-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not

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described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 1 recites the limitation “without running a confidence check” on lines 3 and 7.

The specification does not provide enough support for this limitation. The only statement found regarding this limitation is in the Summary of the Invention, pg. 15, lines 13-16. However, no further details were provided regarding how this invention utilizes and/or incorporates this feature. This limitation is interpreted as “without resolving any unresolved conflicts”.

Claims 16-17 are rejected for dependency upon rejected base claim 1 above.

20. Claims 18-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 18 recites the limitation “including fast on-chip memory” on lines 4 and 14-15 of the claim. The specification does not provide support for this limitation.

Claims 19-20 are rejected for dependency upon rejected base claim 18 above.

21. Claims 18-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 18 recites the limitation "including fast on-chip memory" on lines 4 and 14-15 of the claim. The specification does not provide support for this limitation.

Claims 19-20 are rejected for dependency upon rejected base claim 18 above.

22. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

23. Claims 1 and 16-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

24. Claim 1 recites the limitation "without running a confidence check" on lines 3 and 7. The specification does not provide enough support for this limitation. The only statement found regarding this limitation is in the Summary of the Invention, pg. 15, lines 13-16. However, no further details were provided regarding how this invention utilizes and/or incorporates this feature. Therefore, this limitation is indefinite. This limitation is interpreted as "without resolving any unresolved conflicts".

Claims 16-17 are rejected for dependency upon rejected base claim 1 above.

25. Claim 16 recites the limitation "*the sequence of commands or gestures*" in lines 5-6 of the claim. There is insufficient antecedent basis for this limitation in the claim. This limitation is interpreted as "the gestures".

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26. Claim 18 recites the limitation "including fast on-chip memory" on lines 4 and 14-15 of the claim. The specification does not provide support for this limitation. Therefore, this limitation is indefinite.

Claims 19-20 are rejected for dependency upon rejected base claim 18 above.

27. Claim 19 recites the limitation "*the sequence of commands or gestures*" in lines 5-6 of the claim. There is insufficient antecedent basis for this limitation in the claim. This limitation is interpreted as "the gestures".

Claim Rejections - 35 USC § 103

28. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

29. Claims 1-6, 8-9 and 12-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lawrence et al. (U.S. Pat. No. 5,519,866) (hereafter Lawrence) in view of McLain, Jr. (U.S. Pat. No. 5,956,513) (hereafter McLain).

Claims 1-2 (Amended), 3-5 and 14 (New)

Lawrence teaches a visual linking apparatus and associated method of allocating code and data sections into different target memories of a processor without running a confidence

check substantially as claimed (See Abstract and col.9, li.60 to col.10, li.20), comprising the steps of:

Generating a specific allocation instruction from a drag-and-drop or point-and-click user gesture made to a graphical user interface from a client program or program component (col.3, li.45-58; col.9, li.47-57) (discussing generating a file based upon the configuration of software components in an interface);

Executing said instruction by altering allocation information associated with one or more code or data section ("changing the program by means of an editor"; col.9, li.47-50) (See fig. 14);

Displaying said current allocation state graphically to the user (fig. 14; col.21, li.5-19) and displaying all components associated with a project (fig. 11, col.18, li.63-67).

Lawrence teaches resolving allocation to the full extent possible given the current allocation information associated with all code and data sections involved in a link ("build operation using fix up processing to resolve memory references"; col.28, li.51-65) (See also fig. 18); recording linking instructions received that describe how the visual linker is to be controlled and so that said linking instructions can be replayed without interaction to obtain the same linking effect (col.3, li.45-58 and col.9, li.41-57); but does not further illustrate the claimed limitations of identifying and presenting allocation errors and sections of code not yet allocated.

In the analogous art of software development, McLain teaches an apparatus and associated method for linking software components (See Abstract) comprising:

An incomplete link module, wherein said incomplete link comprises allocation information on those sections that are allocated by said allocation module and those that have not yet been allocated without running a confidence check and without actually completing the link;

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said allocation information including the allocated position and size of those sections that are allocated to said different target memories (col.13, li.13-41; the limitation "without running a confidence check" is interpreted as without resolving any unresolved conflicts. The user can proceed without resolving any unresolved conflicts, that is, without actually completing the link. Fig. 3A, 3B, 3C, 6A, 6B, 6C, 6D, 6E and col.13, li.43-51; Results report 150 includes allocation information including the allocated position and size of those sections that are allocated to said different target memories.);

A graphical user interface that graphically displays the state of said incomplete link (fig.2, ref. 212 & 214; col.12, li.56-60);

Reporting to client programs the current allocation state inclusive of allocation errors and sections not yet assigned (fig.2, ref. 212 & 214; col.12, li.56-60); and

Repeating these steps until all sections of code and data have been allocated ("user may opt to ...resolve the conflicts"; col.13, li.13-21).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to incorporate the teachings of McLain into the apparatus and method of Lawrence. The modification would have been obvious because one of ordinary skill would have been motivated to use well-known iterative compilation techniques to identify and present errors and unassigned code in developing an application from software components. Such a testing methodology would have been employed to minimize execution errors and simplify the development timeframe of complex applications, as taught by Lawrence (col.3, 42-44).

Claim 6

Lawrence further teaches writing the results to an output file (col.5, li.8-14; col.22, li.18-19).

Claim 8 (Amended)

Lawrence further teaches wherein the record of link instructions may be displayed and altered through a graphical user interface ("any changes made to the project ...are automatically saved."; col.19, li.59-65; fig.12).

Claim 9

Lawrence further teaches wherein the set of code and data sections involved in the link may be determined by analyzing a cross-reference graph ("component hierarchy"; col.21, li.5-19; fig.14).

Claim 12 and 13

Lawrence teaches performing a "DeleteComponent" operation from a cross-reference graph ("component hierarchy"; col.21, li.5-19; fig.14) in an object-oriented linking environment (fig.5A, ref.530; col.10, li.40-44)(See also col.22, li.62 to col.23, li.2). The deletion of a root component in a visual component hierarchy is analogous to applying allocation operations to a related group of sections simultaneously, as determined by a starting section on a cross-reference graph.

Claim 15 (New)

Lawrence teaches the steps of displaying the record of the link instructions and altering through a graphical user interface ("any changes made to the project ...are automatically saved."; col.19, li.59-65; fig.12).

Claim 16 (New)

Lawrence teaches said link server and a link recipe store linking instructions received that describe how the visual linker is to be controlled and can be replayed without interaction to obtain the same effect as the gestures (col.3, li.45-58 and col.9, li.41-57).

Claim 17 (New)

Lawrence teaches wherein said stored linking instruction are displayed and altered through said graphical user interface ("any changes made to the project ...are automatically saved."; col.19, li.59-65; fig.12; any link instruction can be changed/edited while in the browser, which is saved automatically).

Claims 18-20 (New)

These are another versions of the claimed linker discussed above (claims 1 and 16-17, respectively), wherein all claim limitations also have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

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30. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lawrence in view of McLain, as applied to claim 2 above, and further in view of Draves (U.S. Pat. No. 5,950,221).

Claims 10 and 11

Lawrence teaches a visual linker and associated method for improving the development of software applications by allowing the dynamic configuration and linking of components through a visual interface (col.3, li.45-58; col.9, li.47-57). Lawrence does not expressly teach specifying an overflow policy or specifying a minimum and maximum stack size in order to minimize the errors associated with memory misallocations and stack errors.

In the analogous art of computer instruction execution, Draves teaches a stack overflow handler (col.3, li.35-59) that comprises a variable stack size (col.5, li.41-46). Draves teaches this as means of more efficient execution of computer instruction (col.3, li.25-34).

It would have been obvious to one of ordinary skill at the time of the invention to incorporate the overflow handler technique of Draves into the method disclosed by Lawrence. The modification would have been obvious because one of ordinary skill in the art would have been motivated to reduce the frequency of stack overflow and other memory allocation errors during the visual linking of software components in order to improve the overall efficiency of software development, as taught by both Lawrence (col.3, li.42-44) and Draves (col.3, li.25-34).

Response to Arguments

31. Applicant's arguments filed on 1/28/04 with respect to claims 1-6 and 8-20 have been fully considered but they are not persuasive.

In the remarks, the applicant argues that:

a) Claims 1-9, 12 and 13 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Lawrence et al. (U.S. Patent No. 5,539,866) hereinafter Lawrence) further in view of McLain, Jr. (U.S. Patent No. 5,956,513) (hereinafter Mc Lain). Applicant's claimed invention in amended claim 1 calls for "an allocation module for allocating sections of code and data into different target memories of a processor without running a confidence check" and "an incomplete link module, wherein said incomplete link comprises allocation information on those sections that are allocated by said allocation module and those that have not yet been allocated without running a confidence check and without actually completing the link; said allocation information including the allocated position and size of those sections that are allocated to said different target memories." As noted by the examiner Lawrence does not teach or suggest an incomplete Link module that comprises allocation information on those sections that are allocated by said allocation module and those that have not yet been allocated. The examiner references McLain. The ABC in McLain builds an internal table that lists each program file, object module and header file, along with its relevant time stamp, to inform the user when each respective file was created. The internal table refers to temporary data stored in the memory of the computer that embodies ABC, and will later be viewable in a results report. The process is performed for each program file and is repeated until table entries for all programs files are completed. During this step error messages may be generated and sent to the results report. Like wise any potential error

or conflict- that is detected is logged and presented to the user. In step 208 ABC' performs date/time stamp comparison between the object models and header files to determine which source modules are required to be recompiled. In step 210, the ABC performs a syntax check on the commands that invoke the compiler and the linker. Step 212 determines any unresolved conflicts. If unresolved it simply prompts the user to proceed or terminate. If not resolved the unresolved conflicts are presented to the user.

McLain does not have an allocation module for allocating sections of code and data into different target memories of a processor without running a confidence check. It is not seen where different target memories is discussed in McLain. Step 212 in Fig. 2 of McLain is a confidence check. Step 214 presents the conflicts and prompts the user to proceed or terminate. McLain does not have an incomplete link module, wherein said incomplete link comprises allocation information on those sections that are allocated by said allocation module and those that have not yet been allocated perform without running a confidence check and without actually completing the link. Further, McLain does not teach or suggest that the said allocation information includes the allocated position and size of those sections that are allocated to different memories. As discussed previously applicant's incomplete link without running confidence checks allows the user to specify a link in an incomplete fashion so the user may experiment with different linking strategies without the need for actually completing the link. It also allows the user to view the memory layouts in multiple and _different target memories. If the user in McLain elects to proceed with an unresolved conflict the compiler and linker are invoked and the link is completed. There is no suggestion of an incomplete link module as claimed or allocation without actually completing the link. It is not seen where there is anything about position and size

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allocated to memory in McLain or to different target memories. Nothing like this is taught in Lawrence either. Claim 1 further calls for a link server that interprets 'linking instructions modifies such an incomplete link module accordingly and an interface for receiving instructions for said link server and for providing feedback as to the state of this incomplete link. This is not taught in either Lawrence or McLain reference. There no such incomplete link as claimed or means for providing feedback as to the status of this incomplete link where allocation information on those sections that are allocated by said allocation module and those that have not yet been allocated perform without running confidence checks and without actually completing the link or said allocation information includes the allocated position and size of those sections that are allocated to different target memories.

Examiner's response:

a) Examiner strongly disagrees with applicant's assertion that the combination of Lawrence and McLain fails to disclose the claimed limitations recited in claim 1. The combination of Lawrence and McLain clearly shows each and every limitation in claim 1. *Lawrence is relied upon* for "an allocation module for allocating code and data sections into different target memories of a processor without running a confidence check" (See Abstract and col.9, li.60 to col.10, li.20). Further, *McLain is relied upon* for "an incomplete link module, wherein said incomplete link comprises allocation information on those sections that are allocated by said allocation module and those that have not yet been allocated without running a confidence check and without actually completing the link; said allocation information including the allocated position and size of those sections that are allocated to said different target memories" (col.13,

li.13-41; the limitation “without running a confidence check” is interpreted as without resolving any unresolved conflicts. The user can proceed without resolving any unresolved conflicts, that is, without actually completing the link. Fig. 3A, 3B, 3C, 6A, 6B, 6C, 6D, 6E and col.13, li.43-51; Results report 150 includes allocation information including the allocated position and size of those sections that are allocated to said different target memories.). In addition, see the rejection above in paragraph 29 for rejection to claim 1.

In the remarks, the applicant argues that:

b) Claim 1 further calls for a graphical user interface that generates said instructions in response to user gestures and graphically displays the state of said incomplete link with allocated and size information on those sections that are allocated to memory, the values of symbols that are allocated by said allocation module and those that have not yet been allocated is not taught in the references. The status of such incomplete link information is not taught in McLain.

Applicant's claim 1 is therefore deemed allowable over the references.

Examiner's response:

b) Examiner strongly disagrees with applicant's assertion that the combination of Lawrence and McLain fails to disclose the claimed limitations recited in claim 1. The combination of Lawrence and McLain clearly shows each and every limitation in claim 1. The combination of Lawrence and McLain teaches “a graphical user interface that generates said instructions in response to user gestures” (Lawrence, fig.11 & 14, col.18, li.63-67 and col.21, li.5-19) and “a

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graphical user interface that graphically displays the state of said incomplete link" (McLain, fig.2, ref. 212 & 214; col.12, li.56-60).

Furthermore, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the values of symbols) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In addition, see the rejection above in paragraph 29 for rejection to claim 1.

In the remarks, the applicant argues that:

c) Claims 16 and 17 dependent on claim 1 are deemed allowable for at least the same reasons as claim 1. Claim 16 further calls for "said link server and a link recipe store linking instructions received that describe how the visual linker is to be controlled and can be replayed without interaction to obtain the same effect as the sequence of commands or gestures." The examiner in rejecting claim 7 references Fig. 12 and Col. 19 lines 59-65 of Lawrence and in particular to the statement that any changes made to the Project while in the browser is automatically saved. There is no suggestion in this or seen elsewhere of Lawrence of recording linking instructions that describe how the visual linker is to be controlled or any suggestion of storing so link instructions can be replayed without interaction. Claim 17 further calls for "said stored linking instruction are displayed and altered through said graphical user interface." This is not taught or suggested in any the cited references.

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Examiner's response:

c) Examiner strongly disagrees with applicant's assertion that the combination of Lawrence and McLain fails to disclose the claimed limitations recited in claims 16 and 17. The combination of Lawrence and McLain clearly shows each and every limitation in claims 16 and 17. Lawrence is relied upon for "said link server and a link recipe store linking instructions received that describe how the visual linker is to be controlled and can be replayed without interaction to obtain the same effect as the gestures" (col.3, li.45-58 and col.9, li.41-57) and "said stored linking instruction are displayed and altered through said graphical user interface ("any changes made to the project ...are automatically saved." (col.19, li.59-65; fig.12; any link instruction can be changed/edited while in the browser, which is saved automatically). In addition, see the rejection above in paragraph 29 for rejection to claims 16 and 17.

In the remarks, the applicant argues that:

d) Claim 2 calls for "recording linking instructions received that describe how the visual linker is to be controlled and so that said linking instructions can be replayed without interaction to obtain the same linking effect". It is not seen where there is any teaching or suggestion of this in Lawrence or McLain. Claim 2 includes the limitation of cancelled claim 7. The examiner in rejecting claim 7 references Fig. 12 and Col. 19 lines 59-65 of Lawrence and in particular to the statement that any changes made to the Project while in the browser is automatically saved. There is no teaching or suggestion in Lawrence of recording linking instructions that describe how the visual linker is to be controlled or any suggestion of storing so the instruction may be

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replayed without interaction. It is not seen where McLain suggest this either. Claim 2 is therefore deemed allowable over the references.

Claims 3 through 6 and 8 through 13 dependent on claim 2 are deemed allowable for at least the same reasons as Claim 2. Claim 8 further calls for "the record of link instructions may be displayed and altered through a graphical user interface." This is not taught in the references.

Examiner's response:

d) Examiner strongly disagrees with applicant's assertion that the combination of Lawrence and McLain fails to disclose the claimed limitations recited in claims 2-6 and 8-13. The combination of Lawrence and McLain clearly shows each and every limitation in claims 2-6 and 8-13. The Examiner has already addressed the applicant's arguments in the Examiner's Response (c) above. In addition, see the rejection above in paragraph 29 for rejection to claims 2-6 and 8-13.

In the remarks, the applicant argues that:

e) Claims 14 and 15 dependent on claim 2 are deemed allowable for at least the same reasons as claim 2. Claim 14 further calls for the step of replaying said linking instructions without interaction to obtain the same linking effect. This is not taught in the references. Claim 15 further calls for the steps of displaying the record of the link instructions and altering through a graphical user interface. It is not seen where this is taught or suggested in the references.

Examiner's response:

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e) Examiner strongly disagrees with applicant's assertion that the combination of Lawrence and McLain fails to disclose the claimed limitations recited in claims 14 and 15. The combination of Lawrence and McLain clearly shows each and every limitation in claims 14 and 15. The Examiner has already addressed the applicant's arguments in the Examiner's Response (c) above. In addition, see the rejection above in paragraph 29 for rejection to claims 14 and 15.

In the remarks, the applicant argues that:

f) Claim 18 calls for "an allocation module for allocating sections of code and data into different target memories of a processor including fast on-chip memory" and " an incomplete link module, wherein said incomplete link comprises allocation information on those sections that are allocated by said allocation module and those that have not yet been allocated without actually completing the link; said allocation information including the allocated position and size of those sections that are allocated to said different target memories including fast on-chip memory." As pointed out previously it is not seen where this is taught or suggested in the references.

Examiner's response:

f) Examiner strongly disagrees with applicant's assertion that the combination of Lawrence and McLain fails to disclose the claimed limitations recited in claim 18. The combination of Lawrence and McLain clearly shows each and every limitation in claim 18. The Examiner has already addressed the applicant's arguments in the Examiner's Responses (a) and (b) above. In addition, see the rejection above in paragraph 29 for rejection to claim 18.

In the remarks, the applicant argues that:

g) In the rejection of claims 10 and 11 Draves (U.S. Patent no. 5,950,221) is cited. It is not seen where Draves teaches what is missing in Lawrence and McLain.

Examiner's response:

g) Examiner strongly disagrees with applicant's assertion that the combination of Lawrence, McLain and Draves fails to disclose the claimed limitations recited in claims 10 and 11. The combination of Lawrence, McLain and Draves clearly shows each and every limitation in claims 10 and 11. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In addition, see the rejection above in paragraph 30 for rejection to claims 10 and 11.

Conclusion

32. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

33. Any inquiry concerning this communication from the examiner should be directed to Qamrun Nahar whose telephone number is (703) 305-7699. The examiner can normally be reached on Mondays through Thursdays from 9:00 AM to 6:30 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki, can be reached on (703) 305-9662. The fax phone number for the organization where this application or processing is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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QN
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**TODD INGBERG
PRIMARY EXAMINER**